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ON A NEW GENUS AND TWO NEW SPECIES OF OPHIURANS.

BY J. E. IVES.

In a collection of Ophiurans principally from the west coast of North America, but also from localities in the North and South Pacific, recently received by the Academy from Mr. W. N. Lockington, there are two apparently undescribed forms, representing a new genus and a new species respectively.

They unfortunately have no locality attached to them. They are described below. The figures representing the upper and lower surfaces of the disk and of an arm, and the views of the side arm plates near the base of an arm are enlarged two diameters. The views of the outer and inner faces of an arm-bone of *Ophioncus granulatus* have been magnified considerably (Figs. 4, 5).

OPHIONCUS, n. g.

Upper surface of disk covered with swollen plates and granulated; no notch in the disk over the base of the arms; teeth few; no tooth papillæ; mouth papillæ small, even, numerous; side mouth shields long, not meeting within; arm spines, few, short, arranged on the outer edge of the side arm plate; upper and lower arm plates entire; four genital openings in each interbrachial space. The genital openings nearest to the mouth are long and narrow, and widest at their inner ends; the openings farthest from the mouth are small and nearly circular. These four genital openings appear to have been formed from the two usually found by the edges of each of the two original slits meeting near their outer ends. I believe that *Ophiura* is the only other genus of *Ophiuridæ* possessing four genital openings. In *Ophiura*, however, the inner opening is smaller than the outer one. *Ophioncus* in general characters somewhat resembles *Ophiozona*, but differs markedly in the swollen granulated plates of the disk and in the presence of four genital openings and two tentacle scales. The arm bones (figs. 4, 5) appear to have more resemblance to those of *Ophiozona* than to those of any other genus.

Ophioncus granulatus, n. sp. (Figs. 1-5.)

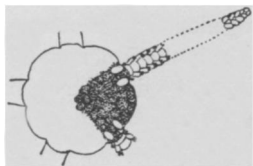


Fig. 1.

Upper surface of disk covered with irregular swollen plates, granulated; small irregularly oval, naked radial shields. Lower surface of the disk covered with smooth scales, granulated; mouth shields, ovate with the smaller end directed to-

wards the mouth, partially granulated; side mouth shields longer than broad, inner ends not meeting within; teeth two or three, conical, pointed, flattened from above downwards; mouth papillæ about eighteen to each mouth angle, small, closely placed, touching

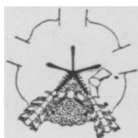


Fig. 2.

one another, the inner ones bluntly conical and becoming squarer as they pass outwards. Edge of the disk between the arms slightly swollen. Arms, length not much greater than the diameter of the disk, short, flat; outer edges of the upper arm plates convex, about twice as wide as the inner edge; the

lateral edges straight; side arm plates projecting forwards and outwards, meeting above and below only towards the tip of the arm,



Fig. 3.

bearing five short stout spines, the lowest rather longer than the others and the base covered by the outer tentacle scale;

sometimes near the base of the arm there are one or two supplementary spines within and between the others; under arm plates four-sided with the inner angles truncated, longer than broad,



Fig. 4.



Fig. 5.

outer edge convex, wider than the inner edge; lateral edges concave; two tentacle scales, the inner one the larger of the two.

Diameter of the disk about 7 mm.; length of arms about 9 mm.

Color of single dried specimen, a very light brownish tint.

***Ophioglypha Lockingtoni*, n. sp. (Figs. 6-8.)**

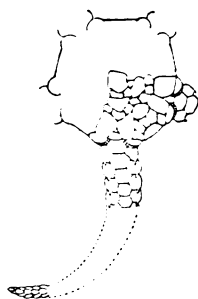


Fig. 6.

Disk stout, flat; dorsal surface with central rosette of primary plates; a similar plate in each interbrachial space, and in each of the interbrachial spaces of the edge of the disk; radial shields rounded pentagonal, about the same size as the primary plates; between the larger plates there are smaller ones. Mouth shields covering the greater part of the interbrachial spaces of the under surface of the disk, ovate with the narrower end turned inwards; side mouth shields oblong; outer pair meeting along their whole length, and their outer ends resting upon the inner end of the mouth shield; the inner pair meeting along the greater part of their length, and their outer ends resting upon the inner ends of the outer pair. The rest of the lower surface of the disk is covered with a few smaller scales. Arms, short, strongly keeled; upper arm

plates convex, rounded hexagonal; side arm plates convex, about three times as high as broad, not meeting above or below, bearing a single small arm spine rather more than half way up the side of the arm; on some of the arm plates there are one or more extremely rudimentary papillæ; mouth tentacle pores opening into the mouth slit, and having six tentacle scales on the inner side and five on the outer; five tentacle scales on the inner side of the sixth arm plate and one

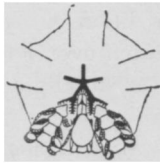


Fig. 7.

tentacle scale on the outer side; farther out the tentacle scales on the outer side of the tentacle pores disappear altogether; papillæ of an arm comb about seventeen in number, squarish flat and touching each other and borne by a semicircular plate about four times as long as broad; under arm plates rather convex, irregularly hexagonal, longer than broad; about nine mouth papillæ in each mouth angle, those at the side of the angle small flattened, three rather larger pointed ones at the apex. Diameter of disk 9 mm.; length of arms 17 mm.



Fig. 8.

Color of the two dried specimens, dull straw.

This form approximates more or less to many of the species of this prolific genus but may be distinguished by its large ovate mouth shields, and the following combination of characters:—the possession of a single arm spine, the shape of the upper and lower arm plates, and the arrangement of the plates covering the disk.